

Application No.: 09/975385

Case No.: 56390US002

REMARKS

The Applicant thanks the Examiner for the courtesy extended to their representative, Carolyn A. Fischer, during the interview of April 18, 2005.

Rejections Under 35 U.S.C. 102/103

Claims 1, 3-6, 10, 11 and 16-27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 866 487 in view of WO 00/39831.

Claims 12, 14, and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 866 487 as applied to claims 1 and 11 and in further view of Carre et al. (5,853,446).

Claims 7-9 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 866 487 as applied to claims 1 and 12 and in view of Carre et al. (5,853,446), and further in view of Chiu et al. WO 00/39831.

During the interview, Applicant's representative argued that the primary reference EP 0 866 487 A1 is an embossing process, whereas the present invention is directed to a molding process. Is an alternate embodiment, EP 0 866 487 describes that "the frit containing material 22 could simply be doctored into the grooves 26." (See p. 5, lines 39-40) However, this alternate embodiment does not involve providing a coating on a substrate.

To further distinguish the process of EP 0866 487 and U.S. Patent No. 5,853,446 from the present invention each of the independent claims have been amended to include the feature of original claim 9, i.e. that the mold comprises a polymeric film. The Applicant submits that there is no motivation to combine features from the methods of EP 0866 487 and U.S. Patent No. 5,853,446 with features of the molding method of U.S. 6,247,986, since with respect to the method these references are non-analogous.

According to MPEP 706.02(j), to establish a prima facie case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second there must be reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations.

Application No.: 09/975385

Case No.: 56390US002

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

The Applicant further submits that even if there were some motivation to combine the references as proposed by the Examiner, the prior art relied upon does not teach all the claim limitations.

Claims 1, 24, and 25 recite **"forming a substantially uniform coating of a curable material". . .** In somewhat greater detail, dependent claim 2 recites that the coating has **"a thickness that varies by no more than 5%".**

According to the Office Actions, the Examiner concluded that Figures 6 and 7 of EP 0 866 487 teach this particular feature. The Applicant submits that it is not possible to determine the uniformity of the coating based on Figures 6 and 7 alone. According to p. 4, lines 2-3 of EP 0 866 487, "In a preferred embodiment, a layer of this glass frit is deposited about 40-50 microns thick and then heated to approximately 60°C after which the frit is embossed to form a plurality of parallel recessed channels."

This would clearly imply that the coating of the curable material (i.e. glass frit) is not uniform.

Claim 16 recites . . . **"forming the curable material, using the mold, into a plurality of barrier regions connected by intervening land regions, wherein the land regions have a substantially uniform center thickness".**

The Applicant would like to bring to the Examiner's attention the experimental results provided on p. 27 of the present patent application. These results clearly demonstrate the relationship between coating thickness and fired land thickness. Note that Example 11 of p. 27 employs a coating thickness of 64 microns resulting in a fired land of 8 microns; whereas Example 12 employs a coating thickness of 76 microns (i.e. 12 microns greater than Example 11) resulting in a fired land of 16 microns. Accordingly, if the coating thickness were to vary by 10 microns as suggested by EP 0 866 487, the land thickness would also significantly vary and thus would not have a uniform center thickness.

In conclusion, the Applicant has argued that there is no motivation to combine features from non-analogous reference. Even if such motivation did exist, the combination does not

Application No.: 09/975385

Case No.: 56390US002

arrive at the claimed invention. Accordingly, reconsideration and a timely allowance are respectfully requested.

Respectfully submitted,

4-20-05
Date

By: Carolyn A. Fischer
Carolyn A. Fischer, Reg. No.: 39,091
Telephone No.: (651) 575-3915

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833